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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,700	04/02/2004	Moo Youl Kim	P25148	9714

7055 7590 07/11/2006

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EXAMINER

ALI, MOHAMMAD M

ART UNIT	PAPER NUMBER
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3744

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/815,700

Applicant(s)

KIM ET AL.

Examiner

Mohammad M. Ali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7, 9-12 and 14-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 7, 9-12 and 14-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 10-12, 14, 15-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Constantini et al., (3,122,005). Constantini et al., disclose a refrigerator comprising (Currently Amended) a freezing and cooling chambers, each of the freezing and cooling chambers configured to provide at least one space for receiving an article; an evaporator 25; a cooling air transmitter 22 that transmits cooling air that has been heat-exchanged with the evaporator 25 towards of the freezing and cooling chambers, the transmitter comprising a blower fan 22; a partition provided between the freezing and cooling chambers by the partition walls 18 and 19, the partition being configured to define a predetermined space therein and to provide a cooling air outlets 18b, 19b to the freezing and cooling chambers, the evaporator 25 and the blower fan 22 being positioned within the predetermined space provided within the partition, the predetermined space defining a cooling air passage; the evaporator 25, the blower fan 22, and the cooling air outlet outlets 18b, 19b from the predetermined space to the freezing and cooling chambers being arranged in the predetermined space. Constantini et al., disclose the invention substantially as claimed as stated above including one similar inlet 18a and one similar outlet 19a on the upper portion of the partition except the flow of air towards the upper portion through the passage formed by

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the partition walls 18 and 19. However, the system of Constantini et al., is able to flow the cooling air towards the upper direction and exiting the air through the two upper exits 18a and 19a by simply reversing the air flow or it is an obvious choice of an individual to make air flow and exiting it from either upper exits or lower exits since there is no criticality or unexpected result from it. Regarding narrow space in the air passage to make the air speed high, the space occupied by the evaporator is narrower than the other passage, again two exits 18b and 19b male narrow passage just before the exit point. See Fig.1-2 and column 2, line10 to column 3, line 14.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 7, 9-12 and 14-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Constantini et al., in view of Williams et al. (5,490,395). Constantini et al., disclose the invention substantially as claimed as stated above. However, Constantini et al., do not disclose a damper and an air drawn fan which makes cooling air flow upward to an exit. William et al., teach the use of a damper/baffle12 for controlling air flow and a fan 26 draws cooling air through an evaporator 24 and guided by a duct 28 to exit the cooling air through an upper passage 34 in a refrigerator for the purpose of making a desired cooling air circulation. See Fig. 1 and column 3, line 47 to

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column 4, line 39. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cooling air circulation of Constantini et al., in view of William et al., such that a damper and an air drawn fan which is able draw air through an evaporator and push it to upward to make an air circulation from down ward to upward direction and exit thereon.

Response to Arguments


Applicant's arguments, see remark, filed 06/14/06, with respect to the rejection(s) of claim(s) 1-6 under 102 and 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of new prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad M. Ali whose telephone number is (571) 272-4806. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


MOHAMMAD M. ALI
PRIMARY EXAMINER